Practical File Assignment

Q1 Write a function **PrimeNumber()** that receives an integer number as its parameter. This function return 1 if the number is prime otherwise return 0. Also implement this function in a Python program

Q2 Write a function **Palindrome()** that receives an integer as a parameter. Function returns 1 if the entered number is palindrome otherwise returns 0. Also implement this function in a python program

Q3 Write a function **swapList( )** in python that receives a list of integers as its parameter. This function Interchange the first number with second number and so on. Return this newly generated list to its calling function. Also implement this function in a python program

Q4 Write a function **SumOdd()** that accepts a list of heterogeneous elements as its parameter. The function find outs the sum of all the even numbers available in this list and return it. Also implement this function in a Python Program.

Q5. Write a function in Python **Pattern()** that receives one string as its parameter. Print the following type of pattern on the screen. Also this function in a python program

**Example**

Suppose passed string in pattern function is – Python then the pattern should be like this

P

Py

Pyt

Pyth

Pytho

Python

Pytho

Pyth

Pyt

Py

P

Q6 Write a function in Python **Summery()** that receives a string as its parameter and returns total number of chars, vowels, number and punctuation marks available in this string. Also implement this function in a python program

Q7. Write a function in Python CreateDictionary() that creates a list of dictionary of students. The keys of dictionary are - admno, name, class, fees. Display this list of dictionary on the screen. Also implement this function in a python program.

Q8 Write a menu driven program in python to create a list implemented stack.

Q9 a) Write a function in Python CreateFile() that creates a Text file “sample.txt” with the following data and

save it on the system

**A good boy was sitting on the ramp**

**And was watching tuporials on File handling in Python**

**But it was not as useful as the class work. So he decided to look at**

**a new video tutorial on Python**

b) Write a function ReadFile() that reads the contents of “sample.txt” file and display all those lines that

starts with alphabet ‘A’

Also call these two functions in a python program to show the whole functionality

Q10. a) Write a function in Python CreateFile() that creates a Text file “sample.txt” with the following data and

save it on the system

**A good boy was sitting on the ramp**

**And was watching tutorials on File handling in Python**

**But it was not as useful as the class work. So he decided to look at**

**a new video tutorial on Python**

b) Write a function ReadFile() that reads the contents of “sample.txt” file and display all those words whose

length is 5 or more.

Also call these two functions in a python program to show the whole functionality

Q11 a) Write a function in Python CreateBinaryFile() that creates a binary file “student.dat” with the following records of students. The student records contains admission no , name of student and fees

**Admission studentName fees**

101 rakesh kumar 1250

102 shravan jha 1340

103 udit rathore 1450

104 shlok pathak 1340

b) write a function in python readBinaryFile() that reads the contents of binary file “Student.dat” and display

these records on the screen

Also call these two functions in a python program to show the whole functionality

Q12. a) Write a function in Python CreateBinaryFile() that creates a binary file “employee.csv” with the following records of students. The employee records contains employee number, name of employee and salary

**empno EmpName salary**

101 rakesh kumar 12500

102 shravan jha 34000

103 udit rathore 45000

104 shlok pathak 42000

b) write a function in python readBinaryFile() that reads the contents of binary file “employee.dat” and

display the records of only those employee whose salary is more that 25000 on the screen

Also call these two functions in a python program to show the whole functionality

Q13. a) Write a function in Python CreateCSVFile() that creates a CSV file “employee.csv” with the following records of students. The employee records contains employee number , name of employee and salary

**empno EmpName salary**

101 rakesh kumar 12500

102 shravan jha 34000

103 udit rathore 45000

104 shlok pathak 42000

b) write a function in python readCSVFile() that reads the contents of CSV file “employee.csv” and

display the records of only those employee whose salary is less that 25000 on the screen

Also call these two functions in a python program to show the whole functionality

**MySQL and Python Connectivity Questions**

Create a Table student as per the following specifications and insert 10 records in it

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Admno | Name | Class | Stream | Grade | Fees |
| 101 | Mukul Rai | 12B | Commerce | A | 1235.56 |
| 102 | Aadira | 12A | Science | B | 3442.34 |
| 103 | Anushka | 11A | Science | A | 2540.45 |
| 104 |  |  |  |  |  |

Q14. Write a function InsertRecord() that insert a record of student in a MySQL Table student. Also implement

this function in a Python Program

Q15 Write a function displayRecords() that receives all the records from student table and display them on the

screen. Also implement this function in a Python Program

Q16. Write a function in python DeleteRecord() that delete a record(s) in student table. Also implement this

function in a python program

Q17 Write a function UpdateRecord() that update a student record in student table. Also implement this function

in a python program.

**Data Management Using MySQL**

1. Create a Database ‘DAVSCHOOL’
2. Create a student table with the following attributes where the student id is the primary key.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Field Name** | **Data Type** | **Size** | **Attribute** |
| 1 | ID | Char | 10 | Primary Key |
| 2 | Name | Char | 30 | NOT NULL |
| 3 | Stream | Char | 20 |  |
| 4 | Class | Char | 15 |  |
| 5 | Marks | Float | 6.2 |  |
| 6 | Gender | Char | 1 |  |
| 7 | Grade | Char | 2 |  |

1. Insert the details of a 10 student in the above table using INSERT Command. Sample records of students are given below

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Id | Name | Stream | Class | Marks | Gender | Grade | gameID |
| 101 | Rakesh | Science | 12A | 98.45 | M | A | 1 |
| 102 | Pushkar | Human | 12C | 87.67 | M | B | 2 |
| 102 | Arushi | Human | 12A | 99.67 | F | A | 2 |
| 103 | Nikunj | Comm | 11B | 78.45 | M | C | 4 |
| 104 | Utkarsh | Science | 11A | 89.34 | M | B | 2 |
| 105 | Zareena | Comm | 11C | 67.56 | F | C | 4 |
| 106 | Khushboo | Human | 12B | 78.23 | F | B | 3 |
| 107 | Sehaj | Science | 12A | 99.89 | F | A | 2 |
| 108 | Karan | Human | 11B | 34.56 | M | C | 1 |
| 109 | Varun | Human | 11C | 56.56 | M | C | 3 |
| 110 | Ritik roshan | Comm. | 12B | 68.67 | M | B | 1 |

1. Add following column in the above table STUDENT with the following specification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| s.no | Field name | Data type | Size | Constraint |
| 1 | Email | Char | 60 | Not null |
| 2 | Website | Char | 60 |  |

1. Display all the records of student table
2. Display student id, name and stream of the students from the above table of student
3. Create a report of student fees containing id,name,fees and anuual fees from the above table student ( assume fees displayed in the above table is monthly fees )
4. Display student name, stream and gameID of all the students

**Where clause**

1. Use the select command to get the details of the students with marks more than 80.
2. Display the records of all those female students
3. Display all the records of all those students whose marks is more than 80.00 and they are from humanities stream
4. Display the records of humanities and commerce stream students
5. Display only the records of all those students who are not from science stream

**Like clause**

1. Display the records of all those students whose name start with alphabet ‘R’
2. Display name and stream of all those female student whose name does not end with ‘na’.
3. Display id,name, stream of all students whose name contains ‘ar’ and whose grade is ‘A’

**Between clause**

1. Display the records of all those students whose fees is between 1200 and 1500
2. Display the records of all those male students whose fees is between 1500 and 2000

**Order by clause**

1. Display all the records of student table in ascending order ( according to student name )
2. Display the names of all the female student in descending order according to their marks.
3. Display id, name, stream , fees of all the male student in ascending order ( order by fees )

**Group By clause**

1. Display stream wise student strength.
2. Find out stream wise , total fees, minimum fees, maximum fees, and average fees
3. Display stream wise strength of student table where number of student in each stream is more than 2

**Update/delete Command**

1. Increase the fees 10% of all those students whose marks is less than 50.00
2. Remove all the records of those students whose grade is ‘C’
3. Create a table **‘Games’** with the following specification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| s.no | Field name | Data type | Size | Specification |
| 1 | Gameid | Number | 5 |  |
| 2 | Coach name | Char | 30 |  |
| 3 | Gamename | Char | 30 |  |
| 4 | Fees | Float | 7,2 |  |

1. Insert the following records in the above table

|  |  |  |  |
| --- | --- | --- | --- |
| gameID | Coach Name | GameName | Fees |
| 1 | Ravi verma | Cricket | 2500 |
| 2 | Deepak Singh | Sketing | 1200 |
| 3 | Vikas Sharma | Boxing | 1800 |
| 4 | Sakshi juneja | Kho-kho | 1200 |

**Results from multiple table**

1. Display student name, game name, coach name and fees of the game from the above tables (student and games )
2. Display student name, coach name and fees from the above tables where game fees is more than 1200
3. Find out game wise student’s strength.